SECTION II. (AMENDMENTS TO THE CLAIMS)

A listing of claims 1-60 of the present application, as amended/added herein with markings showing changes made, is provided below:

1-28. (Cancelled).

29-32. (Cancelled).

33. (Currently amended) ~~The~~ A layered structure ~~of claim 29~~ comprising:

a substrate having an upper surface of single crystalline Si, and

a layer of SiC over said upper surface,

said layer of SiC and said upper surface of single crystalline Si define an interface having an abrupt change in C concentration of more than 1 x 10^{18} atoms/cc, wherein the oxygen in said layer of SiC is less than 1 x 10^{17} atoms/cc, and

wherein said layer of SiC includes a p-type dopant in the range from about 1 x 10^{18} to about 1 x 10^{21} atoms/cc and wherein said ~~SiC~~ layer of SiC with said p-type dopant can withstand furnace anneals to temperatures of 850° C and rapid thermal anneal temperatures to 1000° C.

34. (Currently amended) ~~The~~ A layered structure ~~of claim 29~~ comprising:

a substrate having an upper surface of single crystalline Si, and

a layer of SiC over said upper surface,

said layer of SiC and said upper surface of single crystalline Si define an interface having an abrupt change in C concentration of more than 1 x 10^{18} atoms/cc, wherein the oxygen in said layer of SiC layer is less than 1 x 10^{17} atoms/cc, and

wherein said layer of SiC includes a n-type dopant in the range from about 1 x 10^{18} to about 1 x 10^{21} atoms/cc.

35. (Currently amended) The layered structure of claim 33 further including a layer of Si over said layer of p-type doped SiC, said p-type doped SiC layer and said Si layer

define an interface having an abrupt change in C concentration above 1 x 10^{18} atoms/cc ~~over a layer thickness in the range from about 6 A to about 60 A~~ and wherein the oxygen in said Si layer is less than 1 x 10^{17} atoms/cc.

36. (Currently amended) The layered structure of claim 35 wherein said interface defined by said p-type doped SiC layer and said Si layer has an abrupt change in p-dopant concentration above 1 x 10^{18} atoms/cc ~~over a layer thickness in the range from about 6 Å to about 60 Å~~.

37. (Currently amended) The layered structure of claim 34 further including a layer of Si over said layer of n-type doped SiC, said n-type doped SiC layer and said Si layer define an interface having an abrupt change in C concentration above 1 x 10^{18} atoms/cc ~~over a layer thickness in the range from about 6 Å to about 60 Å~~ and wherein the oxygen in said Si layer is less than 1 x 10^{17} atoms/cc.

38. (Currently amended) The layered structure of claim 37 wherein said interface defined by said n-type doped SiC layer and said Si layer has an abrupt change in dopant concentration above 1 x 10^{18} atoms/cc ~~over a layer thickness in the range from about 6 Å to about 60 Å.~~

39. (Currently amended) The layered structure of claim 29 further including a layer of SiGe over said layer of SiC, said SiC layer and said ~~SiGe~~ layer of SiGe define an interface having an abrupt change in C concentration above 1 x 10^{18} atoms/cc ~~over a layer thickness in the range from about 6 A to about 60 A~~ and wherein the oxygen in said ~~SiGe~~ layer of Sige is less than 1 x 10^{17} atoms/cc.

40. (Currently amended) The layered structure of claim 33 further including a layer of SiGe over said layer of p-type doped SiC, said p-type doped SiC layer and said ~~SiGe~~ layer of SiGe define an interface having an abrupt change in C concentration above 1 x 10^{18} atoms/cc ~~over a layer thickness in the range from about 6 A to about 60 A~~ and wherein the oxygen in said ~~SiGe~~ layer of SiC is less than 1 x 10^{17} atoms/cc.

41. (Currently amended) The layered structure of claim 34 further including a layer of SiGe over said layer of n-type doped SiC, said n-type doped SiC layer and said ~~SiGe~~ layer of SiGe define an interface having an abrupt change in C concentration above 1 x 10^{18} atoms/cc ~~over a layer thickness in the range from about 6 A to about 60 A~~ and wherein the oxygen in said ~~SiGe~~ layer of SiGe is less than 1 x 10^{17} atoms/cc.

42-60. (Cancelled).